Table 1. Comparison of patients characteristics between both groups

Variable	Hypo-responders N=15 (68%)	Responders N=7 (32%)	P value
Age (years)	84.1±7.4	76.8±17	0.08
Gender (Men)	11 (73%)	2 (29%)	0.07
Body Mass Index	30.1±5.9	24.2±5.4	0.01
HTN	15 (100%)	7 (100%)	1
DM	8 (40%)	6 (86%)	0.19
Dyslipidemia	14 (93%)	3 (43%)	0.02
Prior Smoker	8 (53%)	3 (43%)	0.9
Prior MI	4 (27%)	2 (29%)	1
Admission with CHF	14 (93%)	6 (86%)	0.9
Troponin I (ng/ml)	3.68 ± 3.13	0.05 ± 0.04	0.04
Cholesterol (mg/dl)	117.7 ± 15.7	88.5 ± 14.8	0.03
Hg (g/dl)	9.87 ± 1.4	9.57 ± 1.6	0.3
PLT (K/ul)	159 ± 43.9	172 ± 68.9	0.3
Creatinine (mg/dl)	1.75 ± 1.9	1.73± 1.6	0.5

HTN- Hypertension; DM- Diabetes Mellitus; MI- Myocardial infarction; CHF- Congestive heart failure; CK- Creatine kinase; Hg- hemoglobin; PLT- platelets

Conclusions: Clopidogrel hypo-responsiveness post TAVR is a very common phenomenon. These patients are characterized by higher BMI, dyslipidemia and a trend towards older age and male gender. MACE rate at 30 days was similar for responders and hypo-responders. Further studies are needed to investigate this high rate of hypo-responsiveness post TAVR and its potential consequences on clinical outcomes.

TCT-727

Impact Of Coronary Artery Disease Severity Assessed by SYNTAX-Score On Clinical Outcomes in Patients Undergoing Transcatheter Aortic Valve Implantation

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Background: Coronary artery disease (CAD) and aortic stenosis (AS) frequently coexist. It remains unknown whether CAD severity exerts a gradient of risk in patients with AS undergoing transcatheter aortic valve implantation (TAVI).
Methods: A total of 445 patients with severe AS undergoing TAVI were included into a prospective registry between 2007 and 2012. The preoperative SYNTAX-score (SS) was determined from baseline coronary angiograms. In case of revascularization prior to TAVI, residual SS (rSS) was also determined. Clinical outcomes were compared between patients without CAD (N=158), patients with low SS (0-22, N=207), and patients with high SS (SS>22, N=80). The prespecified primary endpoint was the composite of cardiovascular death, stroke, or myocardial infarction (MI).
Results: At one year, CAD severity was associated with higher rates of the primary endpoint (no CAD: 12.5%, low SS: 16.1%, high SS: 29.6%; p=0.016). This was driven by differences in cardiovascular death (no CAD: 8.6%, low SS: 13.6%, high SS: 20.4%; p=0.029), whereas the risk of stroke (no CAD: 5.1%, low SS: 3.3%, high SS: 6.7%; p=0.79) and MI (no CAD: 1.5%, low SS: 1.1%, high SS: 4.0%; p=0.54) was similar across the three groups. Patients with high SS received less complete revascularization as indicated by a higher rSS (21.2±12.0 vs. 4.0±4.4, p<0.001) compared with patients with low SS. Of note, the highest rSS tertile (rSS>14) was associated with higher rates of the primary endpoint at 1 year (no CAD: 12.5%, low rSS: 16.5%, high rSS: 26.3%, p=0.043).
Conclusions: CAD is present in two-thirds of elderly patients with severe AS undergoing TAVI in routine clinical practice. Severity of CAD appears to be associated with impaired clinical outcomes at 1 year after TAVI. Patients with SS>22 receive less complete revascularization and have a higher risk of cardiovascular death, stroke, or MI as compared to patients without CAD or low SS.

TCT-728

Trans-Catheter Aortic Valve Implantation – Preservation Of Right Ventricular Function

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Background: Right ventricular (RV) function is reduced after surgical aortic valve replacement (sAVR). The long-term effect on RV function following transcatheter aortic valve implantation (TAVI) is less well established. The aim of this study was to determine whether TAVI may preserve RV function at medium-term outcome.
Methods: We studied 79 consecutive patients (aged 83±7 years) with severe AS but no flow-limiting coronary artery disease, one week before and 12 months after transfemoral TAVI with CoreValve. The TAVI group was compared with 36 patients (aged 70±3 years) who underwent sAVR for severe aortic stenosis (AS). RV inlet diameter measurement was averaged from apical 4-chamber and modified parasternal windows, and tricuspid annular plain systolic excursion (TAPSE) was measured as the M-mode displacement of the tricuspid ring between the q wave of the ECG to pulmonary valve closure.
Results: The sAVR and TAVI groups had similar AS severity pre-operatively (mean aortic pressure drop 51±17mmHg vs. 49±15mmHg respectively, and valve area 0.7cm2 vs 0.6cm2, p=NS for both), though LVEF was reduced in TAVI patients (65±7% vs. 49±16%, p<0.001). There was no difference in RV size (35±3mm vs. 33±6mm), though TAPSE was greater in sAVR group (20±5mm vs. 15±6mm, p<0.001). At 12 months, mean aortic pressure drop decreased and aortic valve area increased in both sAVR and TAVI (to 10±3mmHg and 8±2mmHg respectively, and to 2.0±0.3cm2 vs. 1.8±0.2cm2, p<0.01 for both), though LVEF did not change (62±9% vs. 49±17%). Although RV cavity size did not change in either group, TAPSE decreased after sAVR (to 9±3mm) and increased after TAVI (17±4mm, difference p<0.001).
Conclusions: At medium-term follow-up, RV function deteriorates after sAVR but does not worsen after transfemoral TAVI. Therefore, patients with AS and pre-existing RV dysfunction may benefit preferentially from TAVI. Though clinical significance remains to be determined, RV function should be incorporated into risk score pre-procedure.

TCT-729

The Role of Gait Speed as a Measure of Frailty in the Evaluation of Elderly Patients With Severe Aortic Stenosis for Treatment

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Background: Gait speed (GS) is an independent predictor of mortality after cardiac surgery, however association with clinical outcomes in patients with severe aortic stenosis (AS) undergoing surgical aortic valve replacement (SAVR) versus trans-catheter AVR (TAVR) are limited.
Methods: From 3/2011-12/2012, all patients with severe AS evaluated by a multi-disciplinary heart team underwent standardized GS testing with the 5 meter walk test. Operative outcomes were assessed based on GS as both a continuous (m/s) and categorical (normal/slow) variable with immobile patients assigned a GS of 0 m/s. The primary end points were 30 day and one year mortality.
Results: We enrolled 285 patients (SAVR=76, TAVR=209). The optimal cutoff to discriminate slow from normal GS was 0.7 m/s (6.9s/5m). Patients with normal GS had a higher survival at one year(Figure). Overall normal GS was an independent predictor of mortality at 30 days (OR 0.31,95% CI 0.11-0.88;p=0.028) and one year (OR 0.34 ,95% CI 0.12-0.99;p=0.048) with an 11% reduction in 30 day mortality for every 0.1m/s increase in walk speed. For one year mortality the STS PROM had an AUC=0.681, increasing to 0.704 with GS added. GS was an independent predictor of 30 day mortality after TAVR but not SAVR; with no significant association with mortality in the individual groups at one year.
Conclusions: GS is an independent predictor of mortality in patients with severe AS undergoing therapy including TAVR, but adds minimal additional predictive information to the STS risk score. Patients with slow GS or immobility should be carefully evaluated and counseled regarding mortality risk.